IN THE CLAIMS

Please amend the claims as follows:

Claims 1-11 (Canceled).

Claim 12 (Currently Amended): A method for diagnosing functional faults of a functional architecture ~~composed of a set of~~ comprising functions for performing a service and associated with ~~electronic components~~ sensors and actuators that produce and consume data, ~~at least one of the data being able to assume a predetermined particular value following development of a functional fault of at least one of the electronic components of the set,~~ the method, ~~given a set of functions that performs a service, wherein input and output data can be associated with sensors or actuators,~~ said method comprising:

i) creating a first list of ~~determining~~ particular values, ~~during which particular values~~ corresponding to functional faults of the sensors and actuators ~~are listed~~;

ii) creating a second list of ~~determining propagation, during which~~ particular values that permit propagation of ~~an~~ information ~~stream~~ relating to said functional faults of said sensors and actuators ~~defects~~ across the functional architecture ~~functions are listed~~;

iii) formulating ~~diagnosis, during which~~ a functional diagnosis of the service based on the first and second lists of particular values ~~as a function of lists obtained from the determining i) and ii) are formed~~; and

iv) recording the particular values and their propagation on a memory device ~~for a tool provided for validation of the architecture~~.

Claim 13 (Currently Amended): A diagnostic method according to claim 12, wherein, after ~~the diagnosis~~ formulating of said functional diagnostic (iii), said method comprises a step of deducing ~~given the choice of an embodiment manifested by:~~

~~a hardware architecture composed of calculators, networks, signal lines, and connectors,~~

~~and mapping of functions onto the hardware architecture,~~

~~the particular values are listed according to the method, to deduce~~ an operational diagnosis of ~~the resulting~~ <u>an</u> electronic architecture <u>onto which said functions are mapped, said electronic architecture comprising calculators, networks, signal lines, and connectors</u>.

Claim 14 (Currently Amended): A diagnostic method according to claim <u>13</u> ~~12~~, wherein <u>creating the lists of said particular values is performed</u> ~~the particular values are classified~~ after mapping of the functions onto the ~~hardware~~ <u>electronic</u> architecture.

Claim 15 (Currently Amended): A diagnostic method according to claim 14, wherein the particular values <u>correspond to at least one of the following</u> ~~are classified among at least one of classes of~~:

cut bus;

corrupted frame;

short circuit applied to a wire;

wrong contact applied to a connector of a strand, sensor, actuator or calculator; and

execution fault applied to a microcontroller.

Claim 16 (Currently Amended): A method according to claim <u>13</u> ~~12~~, wherein, given ~~an~~ <u>said</u> operational diagnosis for ~~a~~ <u>the</u> service, the <u>particular values comprise</u> functional particular values associated with sensors, actuators, and <u>the method further comprising a step of listing</u> functions executing the service ~~having been listed~~ for at least one data flow between two functions, or between a sensor and a function, or between a function and an actuator, for

which no functional particular value is defined for the flow, <u>and wherein</u> if an operational

particular value is defined, then a new functional particular value is automatically determined

for ~~this~~ <u>said</u> at least one data flow.

Claim 17 (Currently Amended): A method according to claim 12, ~~wherein~~ <u>further</u>

<u>comprising listing</u> undiagnosed feared incidents ~~are listed~~ to construct an analysis of

functional safety of the functional architecture.

Claim 18 (Currently Amended): A method according to claim 12, wherein <u>said</u>

<u>functions are mapped onto</u> ~~, given the choice of an embodiment manifested by:~~

a hardware architecture composed of calculators, networks, signal lines, and

connectors,

and ~~mapping of functions onto the hardware architecture,~~

<u>wherein</u> the particular values and feared incidents are listed ~~according to the method,~~

to deduce an analysis of functional safety of the ~~resulting~~ functional architecture.

Claim 19 (Currently Amended): A diagnostic method according to claim 12, wherein

the <u>functional</u> architecture comprises an architecture with which a vehicle can be equipped.

Claim 20 (Currently Amended): A diagnostic method according to claim 12, further

comprising ~~analysis of~~ <u>analyzing</u> feasibility and/or susceptibility to failure of functioning of

the architecture and <u>analyzing</u> ~~of~~ establishment of an output indicating the feasibility and/or

susceptibility to failure.

Claim 21 (Currently Amended): A commercial article provided with a computer-readable memory, a program executable by a computer being recorded in the memory for diagnosis of functional faults of a functional architecture, the program including encoding for:

i) determining and listing particular values corresponding to functional faults of sensors and actuators;

ii) determining and listing particular values permitting propagation of information relating to ~~these~~ said faults across the functional architecture;

iii) forming ~~the~~ a functional diagnosis of the functional architecture based on said particular values ~~service as a function of the lists obtained from the determining (i) and (ii)~~; and

iv) recording the particular values and their propagation on a memory ~~for a tool provided for validation of the architecture~~.

Claim 22 (Currently Amended): A data-processing tool programmed ~~for the diagnosis of functional faults of a functional architecture using~~ to perform the method for diagnosing functional faults of a functional architecture according to claim 12.

Claim 23 (Currently Amended): A data-processing tool ~~programmed for the diagnosis of functional faults of a functional architecture by using~~ comprising the commercial article according to claim 21.

Claim 24 (New): A diagnostic method according to claim 12, wherein said particular values that permit propagation of said information relating to said functional faults of said

sensors and actuators include a value associated with the presence of a connection fault

between said sensors and actuators.

Claim 25 (New): A diagnostic method according to claim 24, wherein said

connection fault is a short-circuit formed by a wire between said sensors and actuators.

Claim 26 (New): A diagnostic method according to claim 24, wherein said

connection fault is a cut electrical wire between said sensors and actuators.

Claim 27 (New): A diagnostic method according to claim 24, wherein said

connection fault is a faulty connector wire between said sensors and actuators.

Claim 28 (New): A diagnostic method according to claim 12, wherein said particular

values that permit propagation of said information relating to said functional faults of said

sensors and actuators include a value associated with the absence of a connection fault

between said sensors and actuators.